

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A method of despreading a multicode signal that has been generated using two or more spreading codes with different spreading factors, comprising the steps of:

[-] subjecting the signal to a first despreading step that includes a first Fast Hadamard Transform (FHT) to jointly despread the spreading codes, that employ the different spreading factors, wherein, during the first despreading step, despreading is performed by a factor lower than or equal to the lowest spreading factor so that one or more spreading codes are despread only partially; and,

[-] subjecting the signal or a signal portion including one or more partially despread spreading codes to one or more further despreading steps.

2. (Original) The method of claim 1, wherein the despreading steps are performed in a cascaded manner.

3. (Currently Amended) The method of claim 1 [[or 2]], wherein the dimension of the first FHT corresponds to the lowest spreading factor.

4. (Currently Amended) The method of one-of-claims 1 to 3 claim 1, wherein the first despreading step further includes a permutation operation.

5. (Currently Amended) The method of one-of-claims 1 to 4 claim 1, wherein one or more of the despreading steps include a serial-to-parallel conversion.

6. (Currently Amended) The method of one-of-claims 1 to 5 claim 1, wherein the one or more further despreading steps include at least one of a decimating operation, a summation operation, a further FHT, and a multiplication operation.

7. (Previously Presented) The method of step 6, wherein the decimating operation includes distributing a sequence of input samples according to a predefined distribution scheme over two or more signal branches.

8. (Original) The method of claim 7, wherein in each signal branch a summation operation is performed and the outputs of the summation operations are used as input for a second FHT.

9. (Currently Amended) The method of ~~one of claims 1 to 8~~ claim 1, wherein the one or more further despreading steps include a multiplication operation that is followed by a summation operation.

10. (Currently Amended) The method of ~~one of claims 1 to 8~~ claim 1, wherein the one or more further despreading steps includes a summation operation followed by a second FHT.

11. (Currently Amended) The method of ~~one of claims 1 to 10~~ claim 1, wherein at least the first FHT is configured as a FHT with reduced operations.

12. (Currently Amended) The method of ~~claims 1 to 11~~ claim 1, wherein during the first despreading step, despreading is performed by a factor equal to the lowest spreading factor so that at least one spreading code is despread completely whereas other spreading codes are despread only partially and wherein the method includes the additional step of outputting any informational data streams that had been spread with any spreading codes that are completely despread.

13. (Currently Amended) A despreading component (38) apparatus for despreading a multicode signal that has been generated using two or more spreading codes with different spreading factors, comprising:

[-] a first despreading stage [[(40)]] for performing a first despreading step that includes a first Fast Hadamard Transform (FHT) to jointly despread the spreading codes

that employ the different spreading factors, wherein during the first despreading step despreading is performed by a factor lower than or equal to the lowest spreading factor so that one or more spreading codes are despread only partially; and

[[[-]]] at least a second despreading stage [[(42)]] for performing one or more further despreading steps with respect to the signal or a signal portion that includes one or more partially despread spreading codes.

14. (Currently Amended) A receiver for wireless communications including the despreading ~~component~~ apparatus of claim 12.

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